# Maintenance

Motor compartment	7-3
Maintenance services	
Owner's responsibility	
Owner maintenance precautions	
Owner maintenance	7-5
Owner maintenance schedule	
Scheduled maintenance services	7-7
Normal maintenance schedule – For Europe	.7-8
Maintenance under severe usage conditions –	
For Europe	7-10
Normal maintenance schedule – Except Europe7	7-12
Maintenance under severe usage conditions –	
Except Europe	
Explanation of scheduled maintenance items.7	
Coolant	-17
Checking the coolant level	7-17
Changing coolant	7-20
Brake fluid7	-20
Checking the brake fluid level	7-20
Washer fluid7	-22
Checking the washer fluid level	7-22

7-23
7-23
7-25
7-25
7-25
7-28
7-29
7-29
7-30
7-31
7-32
7-32
7-33
7-34
7-35
7-36
7-36
7-37
7-37
7-37
7-37

7-42
7-43
ent7-44
7-45
7-57
7-58
7-62
7-67
7-67
t7-70
7-70
7-71
7-73
7-73
7-78

# **MOTOR COMPARTMENT**



- 1. Coolant reservoir
- 2. Brake fluid reservoir
- 3. Fuse box
- 4. Battery (12 volt)
- 5. Coolant reservoir cap
- 6. Windshield washer fluid reservoir

The actual motor compartment in the vehicle may differ from the illustration.

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#### MAINTENANCE SERVICES

You should exercise the utmost care to prevent damage to your vehicle and injury to yourself whenever performing any maintenance or inspection procedures.

We recommend you have your vehicle maintained and repaired by an authorized HYUNDAI dealer. An authorized HYUNDAI dealer meets HYUNDAI's high service quality standards and receives technical support from HYUNDAI in order to provide you with a high level of service satisfaction.

# Owner's responsibility

Maintenance service and record retention are the owner's responsibility.

You should retain documents that show proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service charts shown on the following pages. You need this information to establish your compliance with the servicing and maintenance requirements of your vehicle warranties.

Detailed warranty information is provided in your Service Passport.

Repairs and adjustments required as a result of improper maintenance or a lack of required maintenance are not covered.

# Owner maintenance precautions

Inadequate, incomplete or insufficient servicing may result in operational problems with your vehicle that could lead to vehicle damage, an accident, or personal injury. This chapter provides instructions only for the maintenance items that are easy to perform. Several procedures can be done only by an authorized HYUNDAI dealer with special tools.

Your vehicle should not be modified in any way. Such modifications may adversely affect the performance, safety or durability of your vehicle and may, in addition, violate conditions of the limited warranties covering the vehicle.

#### NOTICE

Improper owner maintenance during the warranty period may affect warranty coverage. For details, read the separate Service Passport provided with the vehicle. If you're unsure about any service or maintenance procedure, have it done by an authorized HYUNDAI dealer.

#### **OWNER MAINTENANCE**

# **A** WARNING

Performing maintenance work on a vehicle can be dangerous. If you lack sufficient knowledge and experience or the proper tools and equipment to do the work, have it done by an authorized HYUNDAI dealer. ALWAYS follow these precautions for performing maintenance work:

- Park your vehicle on level ground, shift to P (Park) position, apply the parking brake, place the POWER button in the OFF position.
- Block the tires (front and back) to prevent the vehicle from moving.
  - Remove loose clothing or jewelry that can become entangled in moving parts.
- Keep flames, sparks, or smoking materials away from the battery related parts.

The following lists are vehicle checks and inspections that should be performed by the owner or an authorized HYUNDAI dealer at the frequencies indicated to help ensure safe, dependable operation of your vehicle.

Any adverse conditions should be brought to the attention of your dealer as soon as possible.

These Owner Maintenance vehicle checks are generally not covered by warranties and you may be charged for labor, parts and lubricants used.

#### Owner maintenance schedule

## When you stop for fuel:

- Check coolant level in the coolant reservoir.
- Check the windshield washer fluid level.
- Check for low or under-inflated tires.

## **A** WARNING

Be careful when checking your coolant level when the parts in the motor compartment are hot. This may result in coolant being blown out of the opening and cause serious burns and other injuries.

### While operating your vehicle:

- Check for vibrations in the steering wheel. Notice if there is any increased steering effort or looseness in the steering wheel, or change in its straight-ahead position.
- Notice if your vehicle constantly turns slightly or "pulls" to one side when traveling on smooth, level road.
- When stopping, listen and check for unusual sounds, pulling to one side, increased brake pedal travel or "hard-to-push" brake pedal.
- If any slipping or changes in the operation of your reduction gear occurs, check the reduction gear fluid level.
- Check the reduction gear P (Park) function.
- Check the parking brake.
- Check for fluid leaks under your vehicle (water dripping from the air conditioning system during or after use is normal).

## At least monthly:

- Check coolant level in the coolant reservoir.
- Check the operation of all exterior lights, including the stoplights, turn signals and hazard warning flashers.
- Check the inflation pressures of all tires including the spare for tires that are worn, show uneven wear, or are damaged.
- · Check for loose wheel lug nuts.

# At least twice a year: (i.e., every Spring and Fall)

- Check radiator, heater and air conditioning hoses for leaks or damage.
- Check windshield washer spray and wiper operation. Clean wiper blades with clean cloth dampened with washer fluid.
- Check headlamp alignment.
- Check the seat belts for wear and function.

# At least once a year:

- Clean body and door drain holes.
- Lubricate door hinges and hood hinges.
- Lubricate door and hood locks and latches.
- Lubricate door rubber weather strips.
- Check the air conditioning system.
- Inspect and lubricate reduction gear linkage and controls.
- Clean the battery and terminals.
- · Check the brake fluid level.

# **SCHEDULED MAINTENANCE SERVICES**

Follow Normal Maintenance Schedule if the vehicle is usually operated where none of the following conditions apply. If any of the following conditions apply, you must follow the Maintenance Under Severe Usage Conditions.

- Repeated driving short distance of less than 8 km (5 miles) in normal temperature or less than 16 km (10miles) in freezing temperature
- Low speed driving for long distances
- Driving on rough, dusty, muddy, unpaved, graveled or salt-spread roads
- Driving in areas using salt or other corrosive materials or in very cold weather
- · Driving in heavy dust condition
- · Driving in heavy traffic area
- · Driving on uphill, downhill, or mountain road repeatedly
- Towing a trailer or using a camper, or roof rack
- Driving as a patrol car, taxi, other commercial use of vehicle towing
- Driving over 170 km/h (106 miles/h)
- Frequently driving in stop-and-go condition

If your vehicle is operated under the above conditions, you should inspect, replace or refill more frequently than the following Normal Maintenance Schedule. After the periods or distance shown in the chart, continue to follow the prescribed maintenance intervals.

## Normal maintenance schedule - For Europe

The following maintenance services must be performed to ensure good vehicle performance.

Keep receipts for all vehicle services to protect your warranty. Where both mileage and time are shown, the frequency of service is determined by whichever occurs first.

MAINTENANCE	Nun	Number of months or d				driving distance, whichever comes first				
INTERVALS	Months	12	24	36	48	60	72	84	96	
MAINTENANCE	Miles×1,000	10	20	30	40	50	60	70	80	
ITEM	Km×1,000	15	30	45	60	75	90	105	120	
			Inspect	"Coolant	level adju	stment an	d leak" ev	ery day		
Cooling system		At first, inspect 60,000 km (40,000 miles) or 48 months after that, inspect every 30,000 km (20,000 miles) or 24 months			ths					
Coolant*1	At first, replace 210,000 km (140,000 miles) or 120 months after that, replace every 30,000 km (20,000 miles) or 24 months*2									
Reduction gear fluid					I				I	
Battery condition		I	I	I	I	I	I	I	I	
Brake lines, hoses and connecti	ons	I	I	I	I	I	I	I	I	
Brake pedal			I		I		I		I	
Parking brake			I		I		I		I	
Brake fluid		I	R	I	R	I	R	I	R	
Brake discs and pads		I	I	I	I	I	I	I	I	

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

<sup>\*1 :</sup> When adding coolant, use only deionized water or soft water for your vehicle and never mix hard water in the coolant filled at the factory. An improper coolant mixture can result in serious malfunction or vehicle damage.

<sup>\*2 :</sup> For your convenience, it can be replaced prior to it's interval when you do maintenance of other items.

# Normal maintenance schedule - For Europe

MAINTENANCE		mber of m	onths or	driving o	listance,	whicheve	r comes	first	
INTERVALS	Months	12	24	36	48	60	72	84	96
MAINTENANCE	Miles×1,000	10	20	30	40	50	60	70	80
ITEM	Km×1,000	15	30	45	60	75	90	105	120
Steering gear rack, linkage and	boots	I	I	I	I	I	I	I	I
Driveshaft and boots			I		I		I		I
Tire (pressure & tread wear)		I	I	I	I	I	I	I	I
Front suspension ball joints		I	I	I	I	I	I	I	I
Bolt and nuts on chassis and bo	ody	I	I	I	I	I	I	I	I
Air conditioner refrigerant		I	I	I	I	I	I	I	I
Air conditioner compressor		I	I	I	I	I	I	I	I
Climate control air filter			R		R		R		R

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

# Maintenance under severe usage conditions - For Europe

The following items must be serviced more frequently on cars mainly used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.

R: Replace I: Inspect and if necessary, adjust, correct, clean or replace

Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Reduction gear fluid	R	Every 120,000 km (80,000 miles)	C, D, E, F, G, H, I, J
Steering gear rack, linkage and boots	I	Inspect more frequently depending on the condition	C, D, E, F, G
Front suspension ball joints	I	Inspect more frequently depending on the condition	C, D, E, F, G
Disc brakes and pads, calipers and rotors	I	Inspect more frequently depending on the condition	C, D, E, G, H
Driveshaft and boots	I	Inspect more frequently depending on the condition	C, D, E, F, G, H, I
Climate control air filter	R	Replace more frequently depending on the condition	C, E

#### Severe driving conditions

- A : Repeatedly driving short distance of less than 8 km (5 miles) in normal temperature or less than 16 km (10 miles) in freezing temperature
- B: Low speed driving for long distances
- C : Driving on rough, dusty, muddy, unpaved, graveled or salt spread roads
- D : Driving in areas using salt or other corrosive materials or in very cold weather
- E: Driving in heavy dust condition

- F: Driving in heavy traffic area
- G: Driving on uphill, downhill, or mountain roads repeatedly
- H: Towing a trailer, or using a camper or roof rack
- I : Driving as a patrol car, taxi, other commercial use or vehicle towing
- J: Driving over 170 km/h (106 mile/h)
- K: Frequently driving in stop-and-go conditions

# Normal maintenance schedule - Except Europe

The following maintenance services must be performed to ensure good vehicle performance.

Keep receipts for all vehicle services to protect your warranty. Where both mileage and time are shown, the frequency of service is determined by whichever occurs first.

MAINTENANCE	Number of months or driving distance, whichever comes first									
INTERVALS	Months	12	24	36	48	60	72	84	96	
MAINTENANCE	Miles×1,000	10	20	30	40	50	60	70	80	
ITEM	Km×1,000	15	30	45	60	75	90	105	120	
			Inspect	"Coolant	level adju	stment an	d leak" ev	ery day		
Cooling system			,		),000 km (	, ,	,			
		aft	er that, ins	spect ever	ry 30,000	km (20,00	0 miles) o	miles) or 24 months		
Coolant *1			′ '		,000 km (	,	,			
		afte	r that, rep	lace ever	y 30,000 ł	(20,00)	0 miles) o	r 24 mont	hs*2	
Reduction gear fluid					I				I	
Battery condition	For Middle East		Ins	pect 10,00	00 km (6,2	200 miles)	or 6 mon	ths		
Battery Condition	Except Middle East	I	I	I	I	I	I	I	I	
Brake lines, hoses and connections		I	I	I	I	I	I	I	I	
Brake pedal			I		l		I		I	
Parking brake			I		I		I		I	

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

<sup>\*1 :</sup> When adding coolant, use only deionized water or soft water for your vehicle and never mix hard water in the coolant filled at the factory.

An improper coolant mixture can result in serious malfunction or vehicle damage.

<sup>\*2 :</sup> For your convenience, it can be replaced prior to it's interval when you do maintenance of other items.

# Normal maintenance schedule - Except Europe

	MAINTENANCE Number of months or driving distance, whichever comes first								
INTERVALS	Months	12	24	36	48	60	72	84	96
MAINTENANCE	Miles×1,000	10	20	30	40	50	60	70	80
ITEM	Km×1,000	15	30	45	60	75	90	105	120
Brake fluid		I	R	ı	R	I	R	I	R
Brake discs and pads		I	I	I	I	I	I	I	I
Steering gear rack, linkage and	boots	I	I	ı	I	I	I	I	I
Driveshaft and boots			I		I		I		I
Tire (pressure & tread wear)		I	I	I	I	I	I	I	I
Front suspension ball joints		I	I	I	I	I	I	I	I
Bolt and nuts on chassis and bo	ody	I	I	I	I	I	I	I	I
Air conditioner refrigerant		I	I	I	I	I	I	I	I
Air conditioner compressor		I	I	I	I	I	I	I	I
Climate control air filter		R	R	R	R	R	R	R	R

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

# Maintenance under severe usage conditions - Except Europe

The following items must be serviced more frequently on cars mainly used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.

R: Replace I: Inspect and if necessary, adjust, correct, clean or replace

Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Reduction gear fluid	R	Every 120,000 km (80,000 miles)	C, D, E, F, G, H, I, J
Steering gear rack, linkage and boots	I	Inspect more frequently depending on the condition	C, D, E, F, G
Front suspension ball joints	I	Inspect more frequently depending on the condition	C, D, E, F, G
Disc brakes and pads, calipers and rotors	I	Inspect more frequently depending on the condition	C, D, E, G, H

# Maintenance under severe usage conditions - Except Europe

Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Driveshaft and boots	I	Inspect more frequently depending on the condition	C, D, E, F, G, H, I
Climate control air filter	R	Replace more frequently depending on the condition	C, E

# Severe driving conditions

- A : Repeatedly driving short distance of less than 8 km (5 miles) in normal temperature or less than 16 km (10 miles) in freezing temperature
- B: Low speed driving for long distances
- C : Driving on rough, dusty, muddy, unpaved, graveled or salt spread roads
- D : Driving in areas using salt or other corrosive materials or in very cold weather
- E: Driving in heavy dust condition

- F: Driving in heavy traffic area
- G: Driving on uphill, downhill, or mountain roads repeatedly
- H: Towing a trailer, or using a camper or roof rack
- I : Driving as a patrol car, taxi, other commercial use or vehicle towing
- J: Driving over 170 km/h (106 mile/h)
- K: Frequently driving in stop-and-go conditions

# **EXPLANATION OF SCHEDULED MAINTENANCE ITEMS**

# **Cooling system**

Check cooling system components, such as radiator, coolant reservoir, hoses and connections for leakage and damage. Replace any damaged parts.

#### Coolant

The coolant should be changed at the intervals specified in the maintenance schedule.

# Reduction gear fluid

The reduction gear fluid should be inspected according to the intervals specified in the maintenance schedule.

#### **Brake hoses and lines**

Visually check for proper installation, chafing, cracks, deterioration and any leakage. Replace any deteriorated or damaged parts immediately.

#### **Brake fluid**

Check brake fluid level in the brake fluid reservoir. The level should be between the MIN and the MAX marks on the side of the reservoir. Use only hydraulic brake fluid conforming to DOT 3 or DOT 4 specification.

# Brake discs, pads, calipers and rotors

Check the pads, the disc, and the rotor for any excessive wear-out. Inspect calipers for any fluid leakage For more information on checking the pads or lining wear limit, refer to the HYUNDAI web site.

(http://service.hyundai-motor.com)

# **Suspension mounting bolts**

Check the suspension connections for looseness or damage. Retighten to the specified torque.

# Steering gear box, linkage & boots/lower arm ball joint

With the vehicle stopped and the hybrid system off, check for excessive free-play in the steering wheel. Check the linkage for bends or damage. Check the dust boots and ball joints for deterioration, cracks, or damage.

Replace any damaged parts.

#### **Drive shafts and boots**

Check the drive shafts, boots and clamps for cracks, deterioration, or damage. Replace any damaged parts and, if necessary, repack the grease.

# Air conditioning refrigerant

Check the air conditioning lines and connections for leakage and damage.

## COOLANT

The high-pressure cooling system has a reservoir filled with year-round antifreeze coolant. The reservoir is filled at the factory.

Check the antifreeze protection and coolant level at least once a year, at the beginning of the winter season and before traveling to a colder climate.

# **Checking the coolant level**



Check the condition and connections of all cooling system hoses and heater hoses. Replace any swollen or deteriorated hoses

The coolant level should be filled between the MAX and the MIN marks on the side of the coolant reservoir when the parts in the motor compartment is cool.

If the coolant level is low, add enough distilled (deionized) water to bring the level to the MAX mark, but do not overfill. If frequent additions are required, we recommend that you see an authorized HYUNDAI dealer for a cooling system inspection.

# **A** WARNING



Never remove the coolant cap or the drain plug while the radiator is hot. Hot coolant and steam

may blow out under pressure, causing serious injury.

Turn the vehicle off and wait until the parts in the motor compartment cools down. Use extreme care when removing the coolant cap. Wrap a thick towel around it, and turn it counterclockwise slowly to the first stop. Step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, press down on the cap, using a thick towel, and continue turning counterclockwise to remove it.

## **A** WARNING



The electric motor for the cooling fan may continue to operate or start up when the vehicle is not operat-

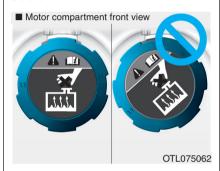
ing and can cause serious injury.

Keep hands, clothing and tools away from the rotating fan blades of the cooling fan.

The electric motor for the cooling fan is controlled by coolant temperature, refrigerant pressure and vehicle speed. As the coolant temperature decreases, the electric motor will automatically shut off. This is a normal condition.

### **A** WARNING

Make sure the coolant cap is properly closed after refilling coolant.



1. Check if the coolant cap label is straight in front.



Make sure that the tiny protrusions inside the coolant cap is securely interlocked.

#### Recommended coolant

- When adding coolant, use only deionized water, distilled water or soft water for your vehicle and never mix hard water in the coolant filled at the factory.
- An improper coolant mixture can result in severe malfunction or electric vehicle system damage.
- Do not use alcohol or methanol coolant or mix them with the specified coolant.
- Do not use a solution that contains more than 60% antifreeze or less than 35% antifreeze, which would reduce the effectiveness of the solution.

For mixing percentage, refer to the following table:

Ambient Temperature		ercentage ume)			
remperature	Antifreeze Water				
-15°C (5°F)	35	65			
-25°C (-13°F)	40	60			
-35°C (-31°F)	50	50			
-45°C (-49°F)	60	40			

# *i* Information

If in doubt about the mix ratio, a 50% water and 50% antifreeze mix is the easiest to mix together as it will be the same quantity of each. It is suitable to use for most temperature ranges of -35°C (-31°F) and higher.

# **Changing coolant**

We recommend that coolant be changed by an authorized HYUNDAI dealer according to the Maintenance Schedule at the beginning of this chapter.

# **A** WARNING

Do not use coolant or antifreeze in the washer fluid reservoir.

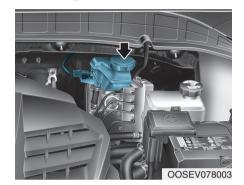
Coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control resulting in an accident.

Coolant may also cause damage to paint and body trim.

#### NOTICE

To prevent damage to parts in the motor compartment, put a thick towel around the coolant cap before refilling the coolant to prevent the coolant from overflowing into parts in the motor compartment.

# BRAKE FLUID Checking the brake fluid level



Check the fluid level in the reservoir periodically. The fluid level should be between MAX and MIN marks on the side of the reservoir.

Before removing the reservoir cap and adding brake fluid, clean the area around the reservoir cap thoroughly to prevent brake fluid contamination. If the level is low, add the specified brake fluid to the MAX level. The level will fall with accumulated mileage. This is a normal condition associated with the wear of the brake linings. If the fluid level is excessively low, we recommend that the brake system be checked by an authorized HYUNDAI dealer.

# **i** Information

- Use only the specified brake fluid. Refer to "Recommended lubricants and capacities" in chapter 8.
- Before removing the brake filler cap, read the warning on the cap.
- Clean the filler cap before removing. Use only DOT3 or DOT4 brake fluid from a sealed container.

### **A** WARNING

If the brake system requires frequent additions of fluid this could indicate a leak in the brake system. We recommend that the vehicle be inspected by an authorized HYUNDAI dealer.

### **A** WARNING

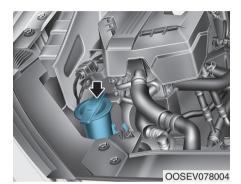
Do not allow brake fluid to come in contact with your eyes. If brake fluid comes in contact with your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention.

#### NOTICE

- Do not allow brake fluid to contact the vehicle's body paint, as paint damage will result.
- Brake fluid, which has been exposed to open air for an extended time should NEVER be used as its quality cannot be guaranteed. It should be disposed of properly.
- Do not use the wrong kind of brake fluid. A few drops of mineral based oil, such as engine oil, in your brake system can damage brake system parts.

#### **WASHER FLUID**

# Checking the washer fluid level



Check the fluid level in the washer fluid reservoir and add fluid if necessary. Plain water may be used if washer fluid is not available. However, use washer solvent with antifreeze characteristics in cold climates to prevent freezing.

## **A** WARNING

To prevent serious injury or death, take the following safety precautions when using washer fluid:

- Do not use coolant or antifreeze in the washer fluid reservoir. Coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control resulting in an accident or damage to paint and body trim.
- Do not allow sparks or flame to contact the washer fluid or the washer fluid reservoir.
   Washer fluid may contain alcohol and can be flammable.
- Do not drink washer fluid and avoid contact with skin.
   Washer fluid is poisonous to humans and animals.
- Keep washer fluid away from children and animals.

### **CLIMATE CONTROL AIR FILTER**

# **Filter inspection**

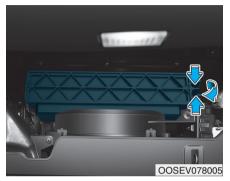
The climate control air filter should be replaced according to the Maintenance Schedule. If the vehicle is operated in severely air-polluted cities or on dusty rough roads for a long period, it should be inspected more frequently and replaced earlier. When you replace the climate control air filter, replace it performing the following procedure, and be careful to avoid damaging other components.



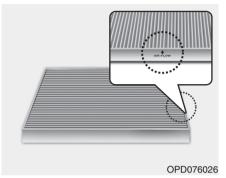
1. With the glove box open, remove the stoppers on both sides.



2. Remove the support rod (1).



- 3. Press and hold the lock (1) on the right side of the cover.
- 4. Pull out (2) the cover.



- 5. Replace the climate control air filter.
- 6. Reassemble in the reverse order of disassembly.

# NOTICE

Install a new climate control air filter in the correct direction with the arrow symbol ( $\downarrow$ ) facing downwards. Otherwise, the climate control effects may decrease, possibly with a noise.

#### **WIPER BLADES**

# **Blade inspection**

Contamination of either the windshield or the wiper blades with foreign matter can reduce the effectiveness of the windshield wipers.

Common sources of contamination are insects, tree sap, and hot wax treatments used by some commercial car washes. If the blades are not wiping properly, clean both the window and the blades with a good cleaner or mild detergent, and rinse thoroughly with clean water.

### NOTICE

To prevent damage to the wiper blades, arms or other components, do not:

- Use gasoline, kerosene, paint thinner, or other solvents on or near them.
- Attempt to move the wipers manually.
- Use non-specified wiper blades.

# *i* Information

Commercial hot waxes applied by automatic car washes have been known to make the windshield difficult to clean.

# **i** Information

Wiper blades are a consumable item and normal wear of the wipers may not be covered by your vehicle warranty.

# Blade replacement

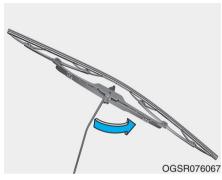
When the wipers no longer clean adequately, the blades may be worn or cracked, and require replacement.

## NOTICE

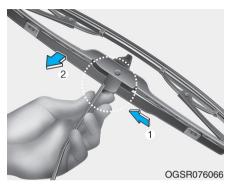
- In order to prevent damage to the hood and the wiper arms, the wiper arms should only be lifted when in the top wiping position.
- Always return the wiper arms to the windshield before driving.

# Front windshield wiper blade

Type A



1. Raise the wiper arm and turn the wiper blade assembly to expose the plastic locking clip.

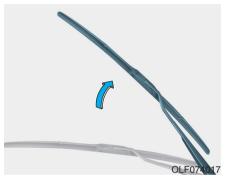


2. Press the clip (1) and slide the blade assembly downward (2).

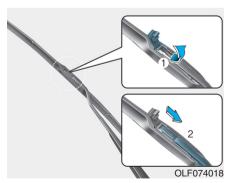


- 3. Lift it off the arm.
- 4. Install a new wiper blade assembly in the reverse order of removal.
- 5. Return the wiper arm on the windshield.

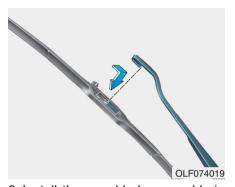
Type B



1. Raise the wiper arm.

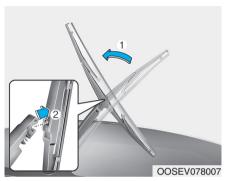


2. Lift up the wiper blade clip (1). Then pull down the blade assembly and remove it (2).



- 3. Install the new blade assembly in the reverse order of removal.
- Return the wiper arm on the windshield.

# Rear window wiper blade



- 1. Raise the wiper arm and then turn the wiper blade assembly (1).
- 2. Pull out the wiper blade assembly (2).



- 3. Install the new blade assembly by inserting the center part into the slot in the wiper arm until it clicks into place (3).
- Make sure the blade assembly is installed firmly by trying to pull it slightly.

To prevent damage to the wiper arms or other components, we recommend that the wiper blades be replaced by an authorized HYUNDAI dealer.

## **BATTERY (12 VOLT)**

# **A** WARNING

To prevent SERIOUS INJURY or DEATH to you or bystanders, always follow these precautions when working near or handling the battery:



Always read and follow instructions carefully when handling a battery.



Wear eye protection designed to protect the eyes from acid splashes.



Keep all flames, sparks, or smoking materials away from the battery.



Hydrogen is always present in battery cells, is highly combustible, and may explode if ignited.



Keep batteries out of reach of children.



Batteries contain sulfuric acid which is highly corrosive. Do not allow acid to contact your eyes, skin or clothing.

If acid gets into your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention. If acid gets on your skin, thoroughly wash the area. If you feel pain or a burning sensation, get medical attention immediately.

- When lifting a plastic-cased battery, excessive pressure on the case may cause battery acid to leak. Lift with a battery carrier or with your hands on opposite corners.
- Do not attempt to jump start your vehicle if your battery is frozen.

- NEVER attempt to recharge the battery when the vehicle's battery cables are connected to the battery.
- The electrical ignition switch works with high voltage. NEVER touch these components with the " ?" indicator ON or when the POWER button is in the ON position.

#### NOTICE

- When you do not use the vehicle for a long time in a low temperature area, disconnect the battery and keep it indoors.
- Always charge the battery fully to prevent battery case damage in low temperature areas.

# For best battery service



- · Keep the battery securely mounted.
- · Keep the battery top clean and dry.
- Keep the terminals and connections clean, tight, and coated with petroleum jelly or terminal grease.
- Rinse any spilled acid from the battery immediately with a solution of water and baking soda.

## **Battery capacity label**



OLMB073072

- \* The actual battery label in the vehicle may differ from the illustration.
- 1. AGM60L-DIN: The HYUNDAI model name of battery
- 2.12V: The nominal voltage
- 3. 60Ah(20HR) : The nominal capacity (in Ampere hours)
- 4.100RC: The nominal reserve capacity (in min.)
- 640CCA : The cold-test current in amperes by SAE
- 6.512A: The cold-test current in amperes by EN

# **Battery recharging**

### By battery charger

Your vehicle has a maintenance-free, calcium-based battery.

- If the battery becomes discharged in a short time (because, for example, the headlights or interior lights were left on while the vehicle was not in use), recharge it by slow charging (trickle) for 10 hours.
- If the battery gradually discharges because of high electric load while the vehicle is being used, recharge it at 20-30A for two hours.

# **A** WARNING

Always follow these instructions when recharging your vehicle's battery to avoid the risk of SERIOUS INJURY or DEATH from explosions or acid burns:

- Before performing maintenance or recharging the battery, turn off all accessories and place the POWER button to the OFF position.
- Keep all flames, sparks, or smoking materials away from the battery.
- Always work outdoors or in an area with plenty of ventilation.
- Wear eye protection when checking the battery during charging.
- The battery must be removed from the vehicle and placed in a well ventilated area.

- Watch the battery during charging, and stop or reduce the charging rate if the battery cells begin boiling violently.
- The negative battery cable must be removed first and installed last when the battery is disconnected. Disconnect the battery charger in the following order:
  - (1) Turn off the battery charger main switch.
  - (2) Unhook the negative clamp from the negative battery terminal.
  - (3) Unhook the positive clamp from the positive battery terminal.
- Always use a genuine HYUNDAI approved battery when you replace the battery.

### By jump starting

After a jump start from a good battery, drive the vehicle for 20-30 minutes before it is shutoff. The vehicle may not restart if you shut it off before the battery had a chance to adequately recharge. See "Jump Starting" in chapter 6 for more information on jump starting procedures.

# **i** Information



An inappropriately disposed battery can be harmful to the environment and human health. Dispose of the battery according to your local law(s) or regulation.

#### **Reset features**

Some items need to be reset after the battery has been discharged or the battery has been disconnected.

- Power Windows
- Trip Computer
- Climate Control System
- Clock
- · Audio System
- Sunroof

## TIRES AND WHEELS

# **A** WARNING

Tire failure may cause loss of vehicle control resulting in an accident. To reduce risk of SERIOUS INJURY or DEATH, take the following precautions:

- Inspect your tires monthly for proper inflation as well as wear and damage.
- The recommended cold tire pressure for your vehicle can be found in this manual and on the tire label located on the driver's side center pillar. Always use a tire pressure gauge to measure tire pressure. Tires with too much or too little pressure wear unevenly causing poor handling.
- Check the pressure of the spare every time you check the pressure of the other tires on your vehicle.

- Replace tires that are worn, show uneven wear, or are damaged. Worn tires can cause loss of braking effectiveness, steering) control, or traction.
- ALWAYS replace tires with the same size as each tire that was originally supplied with this vehicle. Using tires and wheels other than the recommended sizes could cause unusual handling characteristics, poor vehicle control, or negatively affect your vehicle's Anti-Lock Brake System (ABS) resulting in a serious accident.

#### Tire care

For proper maintenance, safety, and maximum fuel economy, you must always maintain recommended tire inflation pressures and stay within the load limits and weight distribution recommended for your vehicle.



All specifications (sizes and pressures) can be found on a label attached to the driver's side center pillar.

# Recommended cold tire inflation pressures

All tire pressures (including the spare) should be checked when the tires are cold. "Cold tires" means the vehicle has not been driven for at least three hours or driven less than 1.6 km (one mile).

Warm tires normally exceed recommended cold tire pressures by 28 to 41 kPa (4 to 6 psi). Do not release air from warm tires to adjust the pressure or the tires will be under-inflated. For recommended inflation pressure, refer to "Tire and Wheels" in chapter 8.

## **A** WARNING

Recommended pressures must be maintained for the best ride, vehicle handling, and minimum tire wear.

Over-inflation or under-inflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure that could result in loss of vehicle control resulting in an accident. Severe under-inflation can lead to severe heat build-up, causing blowouts, tread separation and other tire failures that can result in the loss of vehicle control resulting in an accident. This risk is much higher on hot days and when driving for long periods at high speeds.

# **!** CAUTION

- Under-inflation results in excessive wear, poor handling and reduced fuel economy. Wheel deformation is also possible. Keep your tire pressures at the proper levels. If a tire frequently needs refilling, we recommend it be checked by an authorized HYUNDAI dealer.
- Over-inflation produces a harsh ride, excessive wear at the center of the tire tread, and a greater possibility of damage from road hazards.

# **Check tire inflation pressure**

Check your tires, including the spare tire, once a month or more.

#### How to check

Use a good quality tire pressure gauge to check tire pressure. You can not tell if your tires are properly inflated simply by looking at them. Radial tires may look properly inflated when they are under-inflated.

Remove the valve cap from the tire valve stem. Press the tire gauge firmly onto the valve to get a pressure measurement. If the cold tire inflation pressure matches the recommended pressure on the tire and loading information label, no further adjustment is necessary. If the pressure is low, add air until you reach the recommended pressure. Make sure to put the valve caps back on the valve stems. Without the valve cap, dirt or moisture could get into the valve core and cause air leakage. If a valve cap is missing, install a new one as soon as possible.

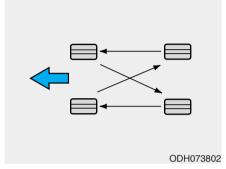
If you overfill the tire, release air by pushing on the metal stem in the center of the tire valve. Recheck the tire pressure with the tire gauge. Be sure to put the valve caps back on the valve stems. Without the valve cap, dirt or moisture could get into the valve core and cause air leakage. If a valve cap is missing, install a new one as soon as possible.

#### Tire rotation

To equalize tread wear, HYUNDAI recommends that the tires be rotated every 10,000 km (6,000 miles) or sooner if irregular wear develops.

During rotation, check the tires for correct balance.

When rotating tires, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tire pressure, improper wheel alignment, out-of-balance wheels, severe braking or severe cornering. Look for bumps or bulges in the tread or side of tire. Replace the tire if you find either of these conditions. Replace the tire if fabric or cord is visible. After rotation, be sure to bring the front and rear tire pressures to specification and check lug nut tightness (proper torque is 11~13 kgf·m [79~94 lbf·ft]).



Disc brake pads should be inspected for wear whenever tires are rotated.

# **i** Information

The outside and inside of the unsymmetrical tire is distinguishable. When installing an unsymmetrical tire, be sure to install the side marked "outside" face the outside. If the side marked "inside" is installed on the outside, it will have a bad effect on vehicle performance.

## **A** WARNING

- Do not use the compact spare tire for tire rotation.
- Do not mix bias ply and radial ply tires under any circumstances. This may cause unusual handling characteristics that may cause loss of vehicle control resulting in an accident.

# Wheel alignment and tire balance

The wheels on your vehicle were aligned and balanced carefully at the factory to give you the longest tire life and best overall performance.

In most cases, you will not need to have your wheels aligned again. However, if you notice unusual tire wear or your vehicle pulling one way or the other, the alignment may need to be reset.

If you notice your vehicle vibrating when driving on a smooth road, your wheels may need to be rebalanced.

#### NOTICE

Improper wheel weights can damage your vehicle's aluminum wheels. Use only approved wheel weights.

# Tire replacement



If the tire is worn evenly, a tread wear indicator will appear as a solid band across the tread. This shows there is less than 1.6 mm (1/16 in.) of tread left on the tire. Replace the tire when this happens.

Do not wait for the band to appear across the entire tread before replacing the tire.

# **A** WARNING

To reduce the risk of DEATH or SERIOUS INJURY:

- Replace tires that are worn, show uneven wear, or are damaged. Worn tires can cause loss of braking effectiveness, steering control, and traction.
- Always replace tires with the same size as each tire that was originally supplied with this vehicle. Using tires and wheels other than the recommended sizes could cause unusual handling characteristics, poor vehicle control, or negatively affect your vehicle's Anti-Lock Brake System (ABS) resulting in a serious accident.

- When replacing tires (or wheels), it is recommended to replace the two front or two rear tires (or wheels) as a pair. Replacing just one tire can seriously affect your vehicle's handling.
- Tires degrade over time, even when they are not being used. Regardless of the remaining tread, HYUNDAI recommends that tires be replaced after six (6) years of normal service.
- Heat caused by hot climates or frequent high loading conditions can accelerate the aging process. Failure to follow this warning may cause sudden tire failure, which could lead to a loss of vehicle control resulting in an accident.

### Wheel replacement

When replacing the metal wheels for any reason, make sure the new wheels are equivalent to the original factory units in diameter, rim width and offset.

### Tire traction

Tire traction can be reduced if you drive on worn tires, tires that are improperly inflated or on slippery road surfaces. Tires should be replaced when tread wear indicators appear. To reduce the possibility of losing control, slow down whenever there is rain, snow or ice on the road.

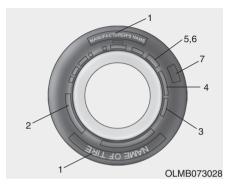
### Tire maintenance

In addition to proper inflation, correct wheel alignment helps to decrease tire wear. If you find a tire is worn unevenly, have your dealer check the wheel alignment.

When you have new tires installed, make sure they are balanced. This will increase vehicle ride comfort and tire life. Additionally, a tire should always be rebalanced if it is removed from the wheel.

### Tire sidewall labeling

This information identifies and describes the fundamental characteristics of the tire and also provides the tire identification number (TIN) for safety standard certification. The TIN can be used to identify the tire in case of a recall.



# **1. Manufacturer or brand name**Manufacturer or brand name is shown.

### 2. Tire size designation

A tire's sidewall is marked with a tire size designation. You will need this information when selecting replacement tires for your car. The following explains what the letters and numbers in the tire size designation mean.

Example tire size designation:

(These numbers are provided as an example only; your tire size designator could vary depending on your vehicle.)

### 215/55 R17 94V

- 215 Tire width in millimeters.
- 55 Aspect ratio. The tire's section height as a percentage of its width.
- R Tire construction code (Radial).
- 17 Rim diameter in inches.
- 94 Load Index, a numerical code associated with the maximum load the tire can carry.
- V Speed Rating Symbol. See the speed rating chart in this section for additional information.

### Wheel size designation

Wheels are also marked with important information that you need if you ever have to replace one. The following explains what the letters and numbers in the wheel size designation mean

Example wheel size designation:

### 7.0J x 17

- 7.0 Rim width in inches.
- J Rim contour designation.
- 17 Rim diameter in inches.

### Tire speed ratings

The chart below lists many of the different speed ratings currently being used for passenger car tires. The speed rating is part of the tire size designation on the sidewall of the tire. This symbol corresponds to that tire's designed maximum safe operating speed.

Speed Rating Symbol	Maximum Speed				
S	180 km/h (112 mph)				
Т	190 km/h (118 mph)				
Н	210 km/h (130 mph)				
V	240 km/h (149 mph)				
Z	Above 240 km/h (149 mph)				

## 3. Checking tire life (TIN : Tire Identification Number)

Any tires that are over six years old, based on the manufacturing date, (including the spare tire) should be replaced by new ones. You can find the manufacturing date on the tire sidewall (possibly on the inside of the wheel), displaying the DOT Code. The DOT Code is a series of numbers on a tire consisting of numbers and English letters. The manufacturing date is designated by the last four digits (characters) of the DOT code.

### DOT: XXXX XXXX OOOO

The front part of the DOT means a plant code number, tire size and tread pattern and the last four numbers indicate week and year manufactured.

For example:

DOT XXXX XXXX 1518 represents that the tire was produced in the 15th week of 2018.

## 4. Tire ply composition and material

The number of layers or plies of rubber-coated fabric in the tire. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others. The letter "R" means radial ply construction; the letter "D" means diagonal or bias ply construction; and the letter "B" means belted-bias ply construction.

## 5. Maximum permissible inflation pressure

This number is the greatest amount of air pressure that should be put in the tire. Do not exceed the maximum permissible inflation pressure. Refer to the Tire and Loading Information label for recommended inflation pressure.

### 6. Maximum load rating

This number indicates the maximum load in kilograms and pounds that can be carried by the tire. When replacing the tires on the vehicle, always use a tire that has the same load rating as the factory installed tire.

### 7. Uniform tire quality grading

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width.

For example:

TREADWEAR 200 TRACTION AA TEMPERATURE A

#### Tread wear

The tread wear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one-and-a-half times (1½) as well on the government course as a tire graded 100.

The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

These grades are molded on the sidewalls of passenger vehicle tires. The tires available as standard or optional equipment on your vehicle may vary with respect to grade.

### Traction - AA, A, B & C

The traction grades, from highest to lowest, are AA, A, B and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

### **A** WARNING

The traction grade assigned to this tire is based on straightahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

### Temperature - A, B & C

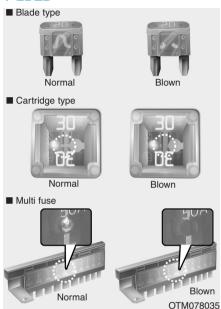
The temperature grades are A (the highest), B and C representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

### **A** WARNING

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under-inflation, over-inflation, or excessive loading, either separately or in combination, can cause heat build-up and possible sudden tire failure. This may cause loss of vehicle control resulting in an accident.

### **FUSES**



A vehicle's electrical system is protected from electrical overload damage by fuses.

This vehicle has 2 (or 3) fuse panels, one located in the driver's side panel bolster, the other in the motor compartment.

If any of your vehicle's lights, accessories, or controls do not work, check the appropriate circuit fuse. If a fuse has blown, the element inside the fuse will be melted or broken.

If the electrical system does not work, first check the driver's side fuse panel. Before replacing a blown fuse, turn the vehicle and all switches off, and then disconnect the negative battery cable. Always replace a blown fuse with one of the same rating.

If the replacement fuse blows, this indicates an electrical problem. Avoid using the system involved and immediately consult an authorized HYUNDAI dealer.

### **i** Information

Three kinds of fuses are used: blade type for lower amperage rating, cartridge type, and multi fuse for higher amperage ratings.

### **A** WARNING

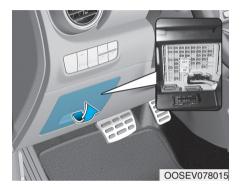
NEVER replace a fuse with anything but another fuse of the same rating.

- A higher capacity fuse could cause damage and possibly cause a fire.
- Do not install a wire or aluminum foil instead of the proper fuse - even as a temporary repair. It may cause extensive wiring damage and possibly a fire.

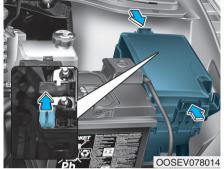
### **A** CAUTION

Do not use a screwdriver or any other metal object to remove fuses because it may cause a short circuit and damage the system.

## Instrument panel fuse replacement



- 1. Turn the vehicle off.
- 2. Turn all other switches off.
- 3. Open the fuse panel cover.
- Refer to the label on the inside of the fuse panel cover to locate the suspected fuse location.



- 5. Pull the suspected fuse straight out. Use the removal tool provided in the motor compartment fuses panel.
- Check the removed fuse; replace it if it is blown. Spare fuses are provided in the instrument panel fuse panels (or in the motor compartment fuse panel).
- Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, we recommended that you consult an authorized HYUNDAI dealer.

In an emergency, if you do not have a spare fuse, use a fuse of the same rating from a circuit you may not need for operating the vehicle, such as the cigarette lighter fuse.

If the headlamps or other electrical components do not work and the fuses are OK, check the fuse panel in the motor compartment. If a fuse is blown, it must be replaced with the same rating.

### Fuse switch



Always, place the fuse switch to the ON position.

If you move the switch to the OFF position, some items such as the audio system and digital clock must be reset and the smart key may not work properly.

### **i** Information

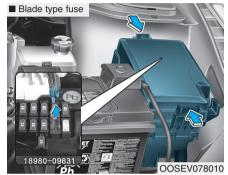


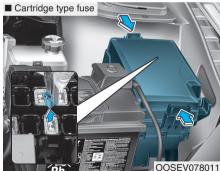
If the fuse switch is OFF, "Turn on FUSE SWITCH" message will appear.

### NOTICE

- Always place the fuse switch in the ON position while driving the vehicle.
- Do not move the transportation fuse switch repeatedly. The fuse switch may be damaged.

## Motor compartment panel fuse replacement





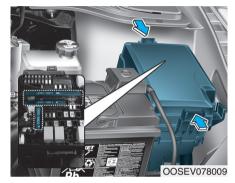
- 1. Turn the vehicle off.
- 2. Turn all other switches off.

- 3. Remove the fuse panel cover by pressing the tap and pulling up.
- Check the removed fuse; replace it if it is blown. To remove or insert the fuse, use the fuse puller in the motor compartment fuse panel.
- Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, consult an authorized HYUNDAI dealer.

### NOTICE

After checking the fuse panel in the motor compartment, securely install the fuse panel cover. You may hear a clicking sound if the cover is securely latched. If it is not securely latched, electrical failure may occur from water contact.

### Multi fuse



If the multi fuse is blown, we recommend that you consult an authorized HYUNDAI dealer.

### Fuse/relay panel description

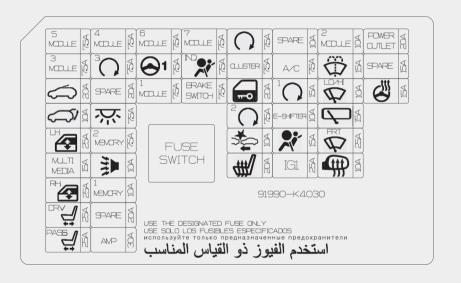
### Instrument panel fuse panel



Inside the fuse/relay box cover, you can find the fuse/relay label describing fuse/relay name and capacity.

### **i** Information

Not all fuse panel descriptions in this manual may be applicable to your vehicle; the information is accurate at the time of printing. When you inspect the fuse box on your vehicle, refer to the fuse box label.



OOSEV078039L

Fuse Name	Symbol	Fuse Rating	Circuit Protected	
MODULE5	s MODULE	7.5A	Electro Chromic Mirror, Audio, AMP, Head Lamp RH, A/V & Navigation Head Unit, Crash Pad Switch, Head Lamp LH, Auto Head Lamp Leveling Device Module, Front Air Ventilation Seat Module, Front Seat Warmer Module	
MODULE3	3 MODULE	7.5A	Stop Switch, BCM	
S/ROOF	()	20A	Sunroof Unit	
T/Gate		10A	Tail Gate Relay	
P/WDW LH	LH 🚰	25A	Power Window LH Relay, Driver Safety Power Window Module (LHD)	
Multi Media	MULTI MEDIA	15A	Audio, A/V & Navigation Head Unit	
P/WDW RH	RH	25A	Power Window RH Relay, Driver Safety Power Window Module (RHD)	
DR/P/Seat	DRV	25A	Driver Seat Manual Switch	
PS/P/Seat	PASS	25A	Passenger Seat Manual Switch	
MODULE4	4 MODULE	7.5A	Blind-Spot Collision Warning Unit LH/RH, BCM, Crash Pad Switch, Vess Unit (Speaker), Multifunction Front View Camera	
PDM3	°C	7.5A	Smart Key Control Module	
Spare	Spare	20A	Spare	

Fuse Name	Symbol	Fuse Rating	Circuit Protected			
ROOM LP	茶	7.5A	Glove Box Lamp, Vanity Lamp LH/RH, Room Lamp, Overhead Console Lamp, Wiresess Charger Unit, Luggage Lamp			
MEMORY2	2 MEMORY	7.5A	/ess Unit (Speaker), Electronic Refrigerant Reduced Pressure Valve			
B/Alarm	***	10A	ICM Relay Box (Burglar Alarm Horn Relay)			
MEMORY	MEMORY	10A	A/C Control Module, Head Up Display, Instrument Cluster, BCM, Rain Sensor			
Spare	Spare	20A	Spare			
AMP	AMP	30A	AMP			
MODULE6	6 MODULE	7.5A	Smart Key Control Module, BCM			
MDPS	⊕1	7.5A	MDPS Unit			
MODULE1	1 MODULE	7.5A	Active Air Flap, ICM Relay Box (Outside Mirror Folding/Unfolding Relay), Hazard Switch, Data Link Connector			
MODULE7	7 MODULE	7.5A	Front Air Ventilation Seat Module, Front Seat Warmer Module			
A/BAG IND	IND	7.5A	Instrument Cluster, A/C Control Modulee			
BRAKE SWITCH	BRAKE SWITCH	7.5A	Stop Lamp Switch, Smart Key Control Module			

Fuse Name	Symbol	Fuse Rating	Circuit Protected			
START	C	7.5A	Smart Key Control (With Smart Key), EPCU			
CLUSTER	CLUSTER	7.5A	ead Up Display, Instrument Cluster			
DR/LOCK		20A	Door Lock Relay, Door Unlock Relay, ICM Relay Box (Dead Lock Relay)			
PDM2	2	7.5A	Start/Stop Button Switch			
FCA	*	10A	Forward Collision Avoidance Assist Unit			
S/HTR	#₩	20A	Front Seat Warmer Module, Front Air Ventilation Seat Module			
Spare	Spare	20A	pare			
A/CON	A/C	7.5A	/C Control Module			
PDM1	10	15A	Smart Key Control Module			
E-SHIFTER	E- SHIFTER	10A	Shift Select Switch (SBW), Front Console Switch			
A/BAG	*	15A	SRS Control Module			
IG1	IG1	25A	PCB Block (FUSE : F9, F11)			

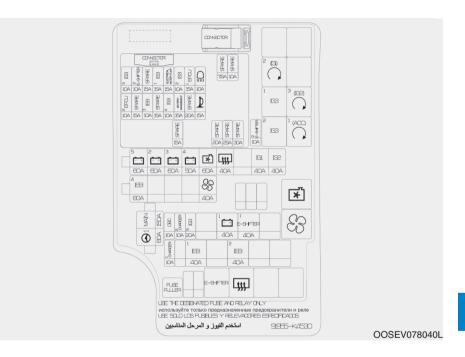
Fuse Name	Symbol	Fuse Rating	Circuit Protected				
MODULE2	2 MODULE	10A	/iresess Charger Unit, Smart Key Control Module, BCM, Audio, A/V & Navigation Head Unit, ower Outlet #1, AMP, Power Outside Mirror Switch				
Washer	⇔	15A	untifunction Switch				
Wiper	LO/HI	10A	ВСМ				
R/Wiper	₽	15A	Rear Wiper Relay, Rear Wiper Motor				
F/Wiper	FRT	25A	Front Wiper Motor, Motor Room Junction Block (Front Wiper (Low) Relay)				
RR HTD		10A	Priver Power Outside Mirror, A/C Control Module				
P/OUTLET1	1POWER OUTLET	20A	Power Outlet #2				
SPARE	Spare	15A	Spare				
HTD STRG	Ø.	15A	ВСМ				



Inside the fuse/relay box cover, you can find the fuse/relay label describing fuse/relay name and capacity.

### *i* Information

Not all fuse panel descriptions in this manual may be applicable to your vehicle; the information is accurate at the time of printing. When you inspect the fuse panel in your vehicle, refer to the fuse panel label.



### **Engine compartment fuse panel**

Rela	y No.	Symbol	Relay Name
RLY.3	E63	2 (lG1)	PDM #2 (IG1) Relay
RLY.5	E65	¹ IG3	IG3 #1 Relay
RLY.6	E66	3 (IG2)	PDM #3 (IG2) Relay
RLY.7	E67	² IG3	IG3 #2 Relay
RLY.8	E68	(ACC)	PDM #1 (ACC) Relay
RLY.9	E69	<b>E</b>	Cooling Fan Relay
RLY.10	E70	S	Blower Relay
RLY.11	E71	E-SHIFTER	E-Shifter Relay
RLY.12	E72	THI)	Rear Defogger Relay

Туре	Fuse Name	Symbol	Fuse Rating	Circuit Protected	
MULTI	MAIN	MAIN	150A	Motor Room Junction Block (Fuse - F24, F26, F28), EPCU (LDC)	
FUSE-1	MDPS	<b>⊘</b> ¹	80A	MDPS Unit	
	BATT5	5 — +	60A	PCB Block (Fuse - F7, F8, F14, F16), Ignition3 MAIN Relay	
	BATT2	2 — +	60A	IGPM ((Fuse - F30), IPS0, IPS1, IPS2)	
	ВАТТ3	3 — +	60A	IGPM (IPS3, IPS5, IPS6, IPS7, IPS8)	
MULTI	BATT4	4 — +	50A	IGPM (Fuse - F3, F4, F5, F7, F8, F9, F15, F18)	
FUSE-2	C/FAN	<b></b>	60A	Motor Room Junction Block (RLY.9)	
	RR DEFOG	<b>#</b>	40A	Motor Room Junction Block (RLY.12)	
	IG1	IG1	40A	Motor Room Junction Block (RLY.3, RLY.8)	
	IG2	IG2	40A	Motor Room Junction Block (RLY.6)	
MULTI	IEB4	<sup>4</sup> IEB	40A	Electronic Brake Control Module	
FUSE-3	BLOWER	S	40A	Motor Room Junction Block (RLY.10)	

Туре	Fuse Name	Symbol	Fuse Rating	Circuit Protected		
	OBC	ОВС	10A	OBC		
FUSE	CHARGER2	2 CHARGER	10A	CM Relay Box (Charge Lock/Unlock Relay), CCM Unit		
	IG3 5	⁵ IG3	20A	Motor Room Junction Block (RLY.5, RLY.7)		
	BATT1	1 — +	40A	IGPM ((Fuse - F21, F24, F27, F28, F33) Leak Current Autocut Device)		
	E-SHIFTER	E-SHIFTER	40A	Motor Room Junction Block ((Fuse - F34) RLY.11))		
	CHARGER1	1 CHARGER	10A	Charge Connector Door Module		
	IEB1	1 IEB	40A	Electronic Brake Control Module, Multipurpose Check Connector		
	IEB2	² IEB	40A	Electronic Brake Control Module		

Туре	Fuse Name	Symbol	Fuse Rating	Circuit Protected
	IG3 3	<sup>3</sup> IG3	10A	Motor Room Junction Block (RLY.9, RLY.10), Electronic A/C Compressor, 3Way Coolant Control Valve LH/RH
	E-SHIFTER3	3 E-SHIFTER	10A	SCU
	IG3 1	<sup>1</sup> IG3	15A	Motor Room Junction Block (RLY.5, RLY.7)
	ELECTRICAL WATER PUMP	ELECTRICAL WATER PUMP	15A	Electronic Water Pump
	IG3 2	² IG3	10A	BMU, OBC, EPCU
	EPCU1	1 EPCU	15A	EPCU
FUSE	H/LAMP		10A	Head Lamp (High) Relay
	EPCU2	<sup>2</sup> EPCU	10A	EPCU
	IEB 3	<sup>3</sup> IEB	10A	Electronic Brake Control Module, Multipurpose Check Connector
	IG3 4	<sup>4</sup> IG3	15A	Active Air Flap, CCM Unit, Charge Connector Door Module, Air Conditioning PTC Heater, Crash Pad Switch, A/C Control Module, Audio, A/V & Navigation Head Unit, Instrument Cluster, IPGM (IPS Control Module)
	BATTERY MAN- AGEMENT	BATTERY MANAGEMENT	10A	вми
	HORN		15A	Horn Relay

## Motor compartment fuse panel (Battery terminal cover)



Inside the fuse/relay box cover, you can find the fuse/relay label describing fuse/relay name and capacity.

### **i** Information

Not all fuse panel descriptions in this manual may be applicable to your vehicle; the information is accurate at the time of printing. When you inspect the fuse panel in your vehicle, refer to the fuse panel label.



### NOTICE

After checking the fuse panel in the motor compartment, securely install the cover. If it is not securely latched, electrical failure may occur from water contact.

### LIGHT BULBS

Consult an authorized HYUNDAI dealer to replace most vehicle light bulbs. It is difficult to replace vehicle light bulbs because other parts of the vehicle must be removed before you can get to the bulb. This is especially true for removing the headlamp assembly to get to the bulb(s).

Removing/installing the headlamp assembly can result in damage to the vehicle.

### **A** WARNING

- Prior to working on a light, depress the foot brake, shift to P (Park), apply the parking brake, place the POWER button in the OFF position and take the key with you when leaving the vehicle to avoid sudden movement of the vehicle and to prevent possible electric shock.
- Be aware the bulbs may be hot and may burn your fingers.

### NOTICE

Be sure to replace the burned-out bulb with one of the same wattage rating. Otherwise, it may cause damage to the fuse or electrical wiring system.

### **i** Information

After heavy driving rain or washing, the lamps could appear frosty. This condition is caused by the temperature difference between the lamp inside and the outside temperature. This is similar to the condensation on your windows inside your vehicle when raining and doesn't indicate a problem with your vehicle. If the water leaks into the light bulb circuitry, have your vehicle checked by an authorized HYUNDAI dealer.

### Information

- A normally functioning lamp may flicker momentarily to stabilize the vehicle's electrical control system. However, if the lamp goes out after flickering momentarily, or continues to flicker, we recommend the system be checked by an authorized HYUNDAI dealer.
- The position lamp may not turn on when the position lamp switch is turned on, but the position lamp and headlamp switch may turn on when the headlamp switch is turned on. This may be caused by network failure or vehicle electrical control system malfunction. If this occurs, we recommend the system be checked by an authorized HYUNDAI dealer.

### **i** Information

The headlamp aiming should be adjusted after an accident or after the headlamp assembly is reinstalled at an authorized HYUNDAI dealer.

### **i** Information

**Traffic Change (For Europe)** 

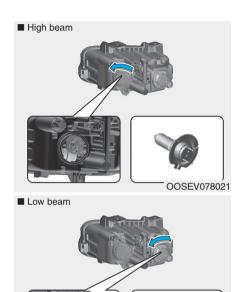
The low beam light distribution is asymmetric. If you go abroad to a country with opposite traffic direction, this asymmetric part will dazzle oncoming car driver. To prevent dazzle, ECE regulation demand several technical solutions (ex. automatic change system, adhesive sheet, down aiming). This headlamps are designed not to dazzle opposite drivers. So, you need not change your headlamps in a country with opposite traffic direction.

Headlamp, daytime running light (DRL), position lamp, turn signal lamp and static lamp bulb replacement

### Type A



- (1) Headlamp (High)
- (2) Headlamp (Low)
- (3) Daytime running light (DRL)/ Position lamp
- (4) Turn signal lamp



### Headlamp

- 1. Open the hood.
- 2. Disconnect the negative battery cable.

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- 3. Remove the bulb cover by turning it counterclockwise.
- Remove the bulb socket from the headlamp assembly by turning it counterclockwise
- 5. Disconnect the bulb socket-connector.
- Reinstall in the reverse order of removal.

### **A** WARNING



- Handle halogen bulbs with care. Halogen bulbs contain pressurized gas that will produce flying pieces of glass that could cause injuries if broken.
- Wear eye protection when changing a bulb. Allow the bulb to cool down before handling it.

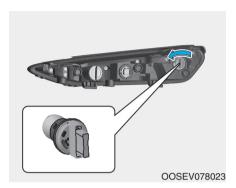
- Always handle them carefully, and avoid scratches and abrasions. If the bulbs are lit, avoid contact with liquids.
- Never touch the glass with bare hands. Residual oil may cause the bulb to overheat and burst when lit.
- A bulb should be operated only when installed in a headlamp.
- If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.

### Daytime running light (DRL)/ Position lamp

If the lamp (LED) does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.



### Turn signal lamp

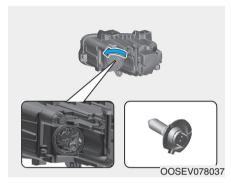
- 1. Open the hood.
- 2. Disconnect the negative battery cable.
- Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
- Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.

- 5. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
- Install the socket into the assembly by aligning the tabs on the socket with the slots in the assembly.
- 7. Push the socket into the assembly and turn the socket clockwise.

Type B



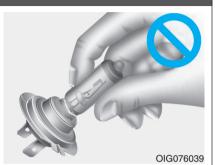
- (1) Static lamp (Low beam assist)
- (2) Headlamp (Low/High)
- (3) Daytime running light (DRL)/ Position lamp
- (4)Turn signal lamp



Static lamp (Low beam assist)

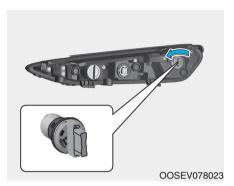
- 1. Open the hood.
- 2. Disconnect the negative battery cable.
- 3. Remove the bulb cover by turning it counterclockwise.
- Remove the bulb socket from the headlamp assembly by turning it counterclockwise
- 5. Disconnect the bulb socket-connecter.
- Reinstall in the reverse order of removal.

### **A** WARNING



- Handle halogen bulbs with care. Halogen bulbs contain pressurized gas that will produce flying pieces of glass that could cause injuries if broken.
- Wear eye protection when changing a bulb. Allow the bulb to cool down before handling it.

- Always handle them carefully, and avoid scratches and abrasions. If the bulbs are lit, avoid contact with liquids.
- Never touch the glass with bare hands. Residual oil may cause the bulb to overheat and burst when lit.
- A bulb should be operated only when installed in a headlamp.
- If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.



### Turn signal lamp

- 1. Open the hood.
- 2. Disconnect the negative battery cable.
- Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
- Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.

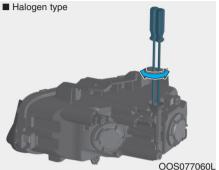
Headlamp (Low/High) and Daytime running light (DRL)/Position lamp If the lamp (LED) does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer

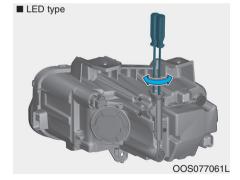
The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

### **Headlamp aiming (For Europe)**

### Headlamp aiming



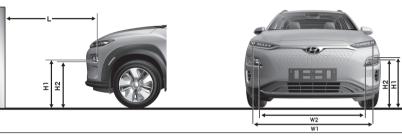


- Inflate the tires to the specified pressure and remove any loads from the vehicle except the driver, spare tire, and tools.
- 2. The vehicle should be placed on a flat floor.
- Draw vertical lines (Vertical lines passing through respective head lamp centers) and a horizontal line (Horizontal line passing through center of head lamps) on the screen.
- With the headlamp and battery in normal condition, aim the headlamps so the brightest portion falls on the horizontal and vertical lines.
- To aim the low beam left or right, turn the driver clockwise or counterclockwise. To aim the low beam up or down, turn the driver clockwise or counterclockwise.

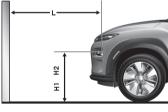
To aim the high beam up or down, turn the driver clockwise or counterclockwise.

### Aiming point





■ LED lamp





H1: Height between the head lamp bulb center and ground (Low beam)

H2: Height between the head lamp bulb center and ground (High beam)

H3: Height between the fog lamp bulb center and ground

W1 : Distance between the two head lamp bulbs centers (Low beam)

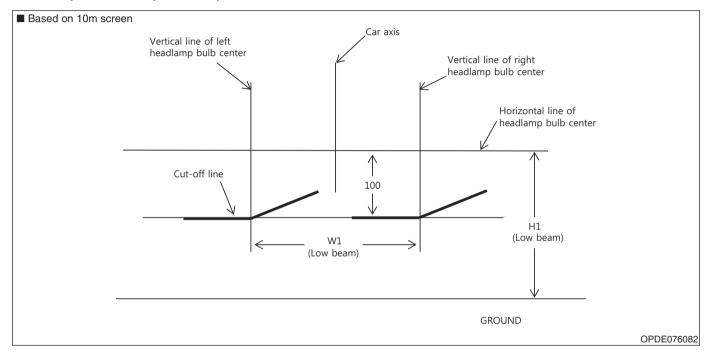
W2: Distance between the two head lamp bulbs centers (High beam)

W3 : Distance between the two fog lamp bulbs centers

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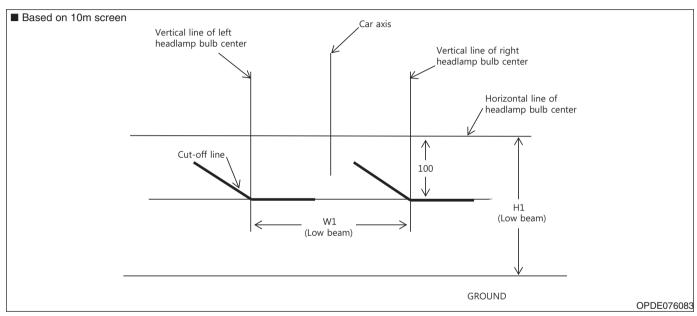
Vehicle condition	Lamp type	H1	H2	W1	W2
Without driver	Halogen	625 (24.6)	617 (24.28)	1506 (59.27)	1320 (51.95)
mm (in)	LED	628 (24.71)		1503 (59.15)	
With driver	Halogen	617 (24.28)	608 (23.93)	1504 (59.15)	1320 (51.95)
mm (in)	LED	620 (24.4)		1503 (59.15)	

### Headlamp low beam (LHD side)



- 1. Turn the low beam on without driver aboard.
- 2. The cut-off line should be projected in the cut-off line shown in the picture.
- 3. When aiming the low beam, vertical aiming should be adjusted after adjusting the horizontal aiming.
- 4. If headlamp leveling device is equipped, adjust the head lamp leveling device switch to "0".

### Headlamp low beam (RHD side)



- 1. Turn the low beam on without driver aboard.
- 2. The cut-off line should be projected in the cut-off line shown in the picture.
- 3. When aiming the low beam, vertical aiming should be adjusted after adjusting the horizontal aiming.
- 4. If headlamp leveling device is equipped, adjust the head lamp leveling device switch to "0".

## Side repeater lamp replacement



If the lamp (LED) (1) does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

## Rear combination lamp bulb replacement

### Type A



- (1) Stop/Tail lamp
- (2) Tail lamp
- (3) Turn signal lamp
- (4) Fog lamp
- (5) Backup lamp

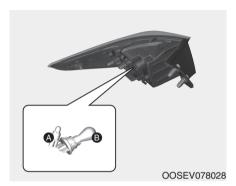


Turn signal lamp

- 1. Turn off the vehicle.
- 2. Open the tailgate.
- Loosen the lamp assembly retaining screws with a cross-tip screwdriver.



4. Remove the rear combination lamp assembly from the body of the vehicle.



Stop and Tail lamp

- Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
- 6.- Stop lamp (A)

Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.

- Tail lamp (B)

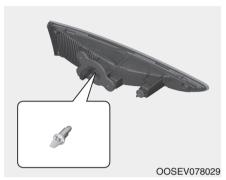
Remove the bulb from the socket by pulling out the bulb.

Reinstall in the reverse order of removal.



Tail lamp

- 1. Turn off the vehicle.
- 2. Open the tailgate.
- 3. Remove the service cover using a flat-blade screwdriver.



- Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
- 5. Remove the bulb from the socket by pulling out the bulb.
- Reinstall in the reverse order of removal.

## Turn signal lamp, fog lamp and backup lamp

If the lamp does not operate, we recommend that you have the vehicle checked by an authorized HYUNDAI dealer.

### Type B



- (1) Stop/tail lamp
- (2) Stop/tail lamp
- (3) Turn signal lamp
- (4) Fog lamp
- (5) Backup lamp

### Stop/tail lamp

If the lamp (LED) does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

## Turn signal lamp, fog lamp and backup lamp

If the lamp does not operate, we recommend that you have the vehicle checked by an authorized HYUNDAI dealer.

## High mounted stop lamp bulb replacement



If the lamp (LED) (1) does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

## License plate light bulb replacement



- 1. Loosen the lens retaining screws with a philips head screwdriver.
- 2. Remove the lens.
- 3. Remove the socket by turning it counterclockwise.
- 4. Remove the bulb by pulling it straight out.
- 5. Install a new bulb.
- Reinstall in the reverse order of removal.

### Interior light bulb replacement

### Map lamp, room lamp and luggage compartment lamp (LED type)





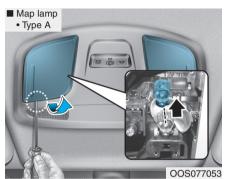


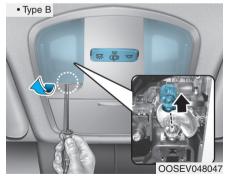
If the lamp (LED) does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer.

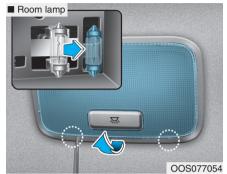
The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

Map lamp, room lamp, glove box lamp, vanity mirror lamp and luggage compartment lamp (Bulb type)













- 1. Using a flat-head screwdriver, gently pry the lens from the interior light housing.
- 2. Remove the bulb by pulling it straight out.
- 3. Install a new bulb into the socket.
- 4. Align the lens tabs with the interior light housing notches and snap the lens into place.

### NOTICE

Use care not to dirty or damage lenses, lens tabs, and plastic housings.

### APPEARANCE CARE

### **Exterior care**

### Exterior general caution

It is very important to follow the label directions when using any chemical cleaner or polish. Read all warning and caution statements that appear on the label.

### High-pressure washing

- When using high-pressure washers, make sure to maintain sufficient distance from the vehicle.
  - Insufficient clearance or excessive pressure can lead to component damage or water penetration.
- Do not spray the camera, sensors or its surrounding area directly with a high pressure washer. Shock applied from high pressure water may cause the device to not operate normally.
- Do not bring the nozzle tip close to boots (rubber or plastic covers) or connectors as they may be damaged if they come into contact with high pressure water.

## Protecting your vehicle's finish Washing

To help protect your vehicle's finish from rust and deterioration, wash it thoroughly and frequently at least once a month with lukewarm or cold water.

If you use your vehicle for off-road driving, you should wash it after each off-road trip. Pay special attention to the removal of any accumulation of salt, dirt, mud, and other foreign materials. Make sure the drain holes in the lower edges of the doors and rocker panels are kept clear and clean.

Insects, tar, tree sap, bird droppings, industrial pollution and similar deposits can damage your vehicle's finish if not removed immediately.

Even prompt washing with plain water may not completely remove all these deposits. A mild soap, safe for use on painted surfaces, should be used.

After washing, rinse the vehicle thoroughly with lukewarm or cold water. Do not allow soap to dry on the finish.

### **A WARNING**

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water before getting on the road. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

### NOTICE

- Do not use strong soap, chemical detergents or hot water, and do not wash the vehicle in direct sunlight or when the body of the vehicle is warm.
- Be careful when washing the side windows of your vehicle.
   Especially, with high-pressure water, water may leak through the windows and wet the interior.
- To prevent damage to the plastic parts, do not clean with chemical solvents or strong detergents.
- To prevent damage to the charging door, make sure to close and lock the vehicle doors when washing (high-pressure washing, automatic car washing, etc.) the vehicle.



### NOTICE

- Water washing in the motor compartment including high pressure water washing may cause the failure of electrical circuits located in the motor compartment.
- Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as this may damage them.

### Waxing

A good coat of wax is a barrier between your paint and contaminate. Keeping a good coat of wax on your vehicle will help protect it.

Wax the vehicle when water will no longer bead on the paint.

Always wash and dry the vehicle before waxing. Use a good quality liquid or paste wax, and follow the manufacturer's instructions. Wax all metal trim to protect it and to maintain its luster.

Removing oil, tar, and similar materials with a spot remover will usually strip the wax from the finish. Be sure to re-wax these areas even if the rest of the vehicle does not yet need waxing.

### NOTICE

- Wiping dust or dirt off the body with a dry cloth will scratch the finish.
- Do not use steel wool, abrasive cleaners, or strong detergents containing highly alkaline or caustic agents on chrome-plated or anodized aluminum parts. This may result in damage to the protective coating and cause discoloration or paint deterioration.

### Repairing your vehicle's finish

Deep scratches or stone chips in the painted surface must be repaired promptly. Exposed metal will quickly rust and may develop into a major repair expense.

### NOTICE

If your vehicle is damaged and requires any metal repair or replacement, be sure the body shop applies anti-corrosion materials to the parts repaired or replaced.

### Bright-metal maintenance

- To remove road tar and insects, use a tar remover, not a scraper or other sharp object.
- To protect the surfaces of brightmetal parts from corrosion, apply a coating of wax or chrome preservative and rub to a high luster.
- During winter weather or in coastal areas, cover the bright metal parts with a heavier coating of wax or preservative. If necessary, coat the parts with non-corrosive petroleum jelly or other protective compound.

### Underbody maintenance

Corrosive materials used for ice and snow removal and dust control may collect on the underbody. If these materials are not removed, accelerated rusting can occur on underbody parts such as the fuel lines, frame, floor pan and exhaust system, even though they have been treated with rust protection.

Thoroughly flush the vehicle underbody and wheel openings with lukewarm or cold water once a month, after off-road driving and at the end of each winter. Pay special attention to these areas because it is difficult to see all the mud and dirt. It will do more harm than good to wet down the road grime without removing it. The lower edges of doors, rocker panels, and frame members have drain holes that should not be allowed to clog with dirt; trapped water in these areas can cause rusting.

### **A** WARNING

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

### Aluminum wheel maintenance

The aluminum wheels are coated with a clear protective finish.

### NOTICE

- Do not use abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum wheels.
- Clean the wheel when it has cooled.
- Use only a mild soap or neutral detergent, and rinse thoroughly with water. Also, clean the wheels after driving on salted roads.
- Do not wash the wheels with high-speed car wash brushes.
- Do not use any cleaners containing acid or alkaline detergents.

### Corrosion protection

**Protecting your vehicle from corrosion** 

By using the most advanced design and construction practices to combat corrosion, HYUNDAI produces vehicles of the highest quality. However, this is only part of the job. To achieve the long-term corrosion resistance your vehicle can deliver, the owner's cooperation and assistance is also required.

### Common causes of corrosion

The most common causes of corrosion on your vehicle are:

- Road salt, dirt and moisture that is allowed to accumulate underneath the vehicle.
- Removal of paint or protective coatings by stones, gravel, abrasion or minor scrapes and dents which leave unprotected metal exposed to corrosion.

### **High-corrosion** areas

If you live in an area where your vehicle is regularly exposed to corrosive materials, corrosion protection is particularly important. Some of the common causes of accelerated corrosion are road salts, dust control chemicals, ocean air and industrial pollution.

### **Moisture breeds corrosion**

Moisture creates the conditions in which corrosion is most likely to occur. For example, corrosion is accelerated by high humidity, particularly when temperatures are just above freezing. In such conditions, the corrosive material is kept in contact with the vehicle surfaces by moisture that is slow to evaporate.

Mud is particularly corrosive because it is slow to dry and holds moisture in contact with the vehicle. Although the mud appears to be dry, it can still retain moisture and promote corrosion. High temperatures can also accelerate corrosion of parts that are not properly ventilated so the moisture can be dispersed. For all these reasons, it is particularly important to keep your vehicle clean and free of mud or accumulations of other materials. This applies not only to the visible surfaces but particularly to the underside of the vehicle.

### To help prevent corrosion Keep your vehicle clean

The best way to prevent corrosion is to keep your vehicle clean and free of corrosive materials. Attention to the underside of the vehicle is particularly important.

If you live in a high-corrosion area

 where road salts are used, near
 the ocean, areas with industrial
 pollution, acid rain, etc.—, you
 should take extra care to prevent
 corrosion. In winter, hose off the
 underside of your vehicle at least
 once a month and be sure to clean
 the underside thoroughly when
 winter is over.

- When cleaning underneath the vehicle, pay particular attention to the components under the fenders and other areas that are hidden from view. Do a thorough job; just dampening the accumulated mud rather than washing it away will accelerate corrosion rather than prevent it. Water under high pressure and steam are particularly effective in removing accumulated mud and corrosive materials.
- When cleaning lower door panels, rocker panels and frame members, be sure that drain holes are kept open so that moisture can escape and not be trapped inside to accelerate corrosion.

### Keep your garage dry

Don't park your vehicle in a damp, poorly ventilated garage. This creates a favorable environment for corrosion. This is particularly true if you wash your vehicle in the garage or drive it into the garage when it is still wet or covered with snow, ice or mud. Even a heated garage can contribute to corrosion unless it is well ventilated so moisture is dispersed.

Keep paint and trim in good condition Scratches or chips in the finish should be covered with "touch-up" paint as soon as possible to reduce the possibility of corrosion. If bare metal is showing through, the attention of a qualified body and paint shop is recommended.

Bird droppings are highly corrosive and may damage painted surfaces in just a few hours. Always remove bird droppings as soon as possible.

### Interior care

### Interior general precautions

Prevent caustic solutions such as perfume and cosmetic oil, from contacting the interior parts because they may cause damage or discoloration. If they do contact the interior parts, wipe them off immediately. See the instructions for the proper way to clean vinyl.

### NOTICE

- Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as this may damage them.
- When cleaning leather products (steering wheel, seats etc.), use neutral detergents or low alcohol content solutions. If you use high alcohol content solutions or acid/ alkaline detergents, the color of the leather may fade or the surface may get stripped off.

## Cleaning the upholstery and interior trim

Vinyl (if equipped)

Remove dust and loose dirt from vinyl with a whisk broom or vacuum cleaner. Clean vinyl surfaces with a vinyl cleaner.

### Fabric (if equipped)

Remove dust and loose dirt from fabric with a whisk broom or vacuum cleaner. Clean with a mild soap solution recommended for upholstery or carpets. Remove fresh spots immediately with a fabric spot cleaner. If fresh spots do not receive immediate attention, the fabric can be stained and its color can be affected. Also, its fire-resistant properties can be reduced if the material is not properly maintained.

### NOTICE

Using anything but recommended cleaners and procedures may affect the fabric's appearance and fire-resistant properties.

### Leather (if equipped)

- · Features of seat leather
  - Leather is made from the outer skin of an animal, which goes through a special process to be available for use. Since it is a natural product, each part differs in thickness or density.
  - Wrinkles may appear as a natural result of stretching and shrinking depending on the temperature and humidity.
  - The seat is made of stretchable fabric to improve comfort.
  - The parts contacting the body are curved and the side supporting area is high which provides driving comfort and stability.
  - Wrinkles may appear naturally from usage. It is not a fault of the products.

### NOTICE

- Wrinkles or abrasions which appear naturally from usage are not covered by warranty.
- Belts with metallic accessories, zippers or keys inside the back pocket may damage the seat fabric.
- Make sure not to wet the seat. It may change the nature of natural leather.
- Jeans or clothes which could bleach may contaminate the surface of the seat covering fabric.

- Caring for the leather seats
  - Vacuum the seat periodically to remove dust and sand on the seat. It will prevent abrasion or damage of the leather and maintain its quality.
  - Wipe the natural leather seat cover often with dry or soft cloth.
  - Use of proper leather protector may prevent abrasion of the cover and helps maintain the color. Be sure to read the instructions and consult a specialist when using leather coating or protective agent.
  - Light colored (beige, cream beige) leather is easily contaminated and the stain is noticeable. Clean the seats frequently.
  - Avoid wiping with wet cloth. It may cause the surface to crack.

- Cleaning the leather seats
  - Remove all contaminations instantly. Refer to instructions below for removal of each contaminant.
  - Cosmetic products (sunscreen, foundation, etc.)

Apply cleansing cream on a cloth and wipe the contaminated spot. Wipe off the cream with a wet cloth and remove water with a dry cloth.

- Beverages (coffee, soft drink, etc.)

Apply a small amount of neutral detergent and wipe until contaminations do not smear.

- Oil

Remove oil instantly with absorbable cloth and wipe with stain remover used only for natural leather.

Chewing gum
 Harden the gum with ice and remove gradually.

### Cleaning the seat belt webbing

Clean the belt webbing with any mild soap solution recommended for cleaning upholstery or carpet. Follow the instructions provided with the soap. Do not bleach or re-dye the webbing because this may weaken the seat belt.

## Cleaning the interior window glass

If the interior glass surfaces of the vehicle become fogged (that is, covered with an oily, greasy or waxy film), they should be cleaned with glass cleaner. Follow the directions on the glass cleaner container.

### NOTICE

Do not scrape or scratch the inside of the rear window. This may result in damage to the rear window defroster grid.